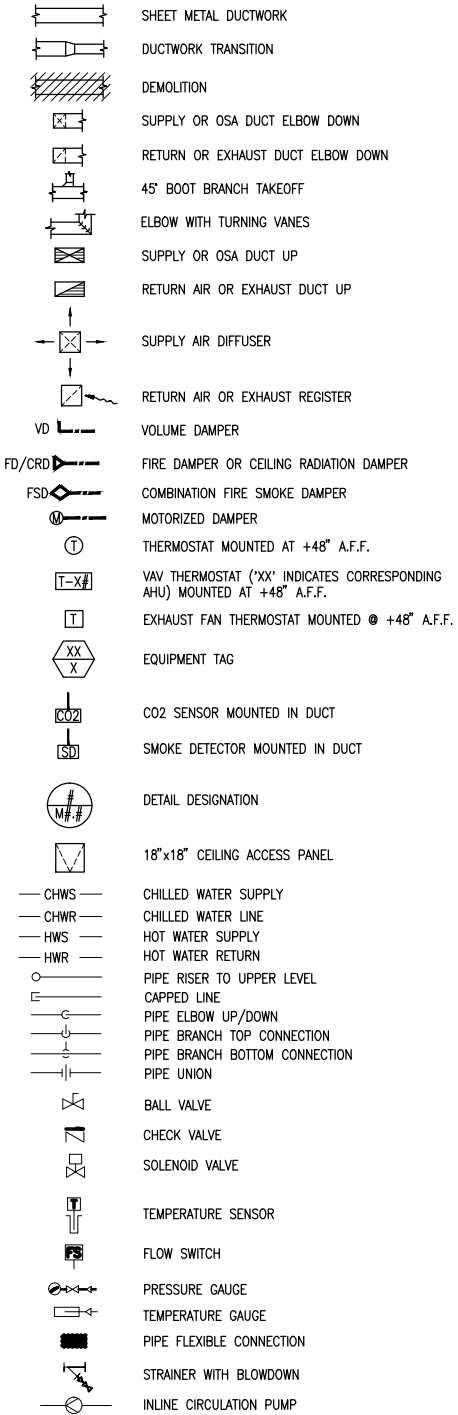


GENERAL MECHANICAL NOTES

1. PROVIDE COMPLETE AND OPERATING SYSTEMS AS SPECIFIED AND INDICATED ON DRAWINGS. "PROVIDE" SHALL MEAN "FURNISH AND INSTALL" WHEN USED HEREIN.
3. WORK SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES INCLUDING: ANSI B9.1/ASHRAE 15 – SAFETY CODE FOR MECHANICAL REFRIGERATION; HAWAII DOH CHAPTER 39, TITLE 11 – AIR CONDITIONING AND VENTILATION; HAWAII COUNTY BUILDING CODE; ASHRAE 62–89 – VENTILATION STANDARD; SMACNA HVAC DUCT CONSTRUCTION STANDARDS; 2006 INTERNATIONAL ENERGY CONSERVATION CODE.
4. CONTRACTOR SHALL ARRANGE AND PAY FOR ALL PERMITS AND FEES.
5. WORK SHALL COMPLY WITH LOCAL CODES AND ORDINANCES INCLUDING THE 2006 UNIFORM MECHANICAL CODE. WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES. WORK SHALL BE GUARANTEED AGAINST DEFECTIVE WORKMANSHIP OR MATERIALS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE PROJECT. WARRANTY WORK SHALL BE COMPLETED AT NO EXTRA CHARGE TO THE OWNERS. FURNISH MANUFACTURER'S PRODUCT WARRANTY CERTIFICATES IN A BINDER.
6. MATERIALS AND EQUIPMENT SHALL BE NEW AND GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE. MATERIALS AND EQUIPMENT SHALL BE AS SCHEDULED OR EQUAL, MEETING THE REQUIREMENTS OF THE SPECIFICATION. MATERIALS AND EQUIPMENT SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO ORDER RELEASE.
7. RECORD DRAWINGS, OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE SUBMITTED AS REQUIRED BY ARCHITECT UPON COMPLETION.
8. DRAWINGS SHALL NOT BE SCALED.
9. PENETRATIONS OF FIRE RATED WALLS OR FLOORS BY PIPE OR DUCT SHALL BE SEALED BY A FIRESTOPPING SYSTEM UL LISTED FOR THE APPLICATION. INSTALL PENETRATION SEAL MATERIALS IN ACCORDANCE WITH PRINTED INSTRUCTIONS OF THE UL FIRE RESISTANCE DIRECTORY AND MANUFACTURERS INSTRUCTIONS. FIRESTOPPING SYSTEM SHALL BE EQUAL TO 3M FIRE BARRIER. FIRESTOPPING MATERIAL SHALL BE CAULK OR PUTTY TYPE.
10. MECHANICAL EQUIPMENT SHALL BE SECURED AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND APPLICABLE SECTIONS OF THE UNIFORM BUILDING CODE AND UNIFORM MECHANICAL CODE.
11. MECHANICAL EQUIPMENT SHALL BE IDENTIFIED WITH BAKELITE NAMEPLATES. COLOR CODING OF NAMEPLATES AND IDENTIFICATION INFORMATION SHALL BE COORDINATED WITH THE OWNER.
12. ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT SHALL BE VERIFIED WITH ELECTRICAL DRAWINGS PRIOR TO ORDER RELEASE. ADDITIONAL ELECTRICAL WORK RESULTING FROM EQUIPMENT SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
13. DUCTWORK, PIPING AND EQUIPMENT SHALL BE PROVIDED WITH SEISMIC RESTRAINTS IN ACCORDANCE WITH THE SMACNA SEISMIC RESTRAINT MANUAL – GUIDELINES FOR MECHANICAL SYSTEMS.
14. THE OWNER SHALL BE NOTIFIED IN WRITING OF SHUTDOWN OF UTILITIES REQUIRED BY THE EXECUTION OF THIS CONTRACT.
15. EQUIPMENT RAIL SUPPORTS SHALL BE OF 18 GA. GALVANIZED STEEL, UTILIZED CONSTRUCTION WITH INTEGRAL BASE PLATE, CONTINUOUS WELDED CORNER SEAMS PRESSURE TREATED WOOD NAILER, AND COUNTERFLASHING WITH LAG SCREWS. SUPPORTS SHALL BE INTERNALLY REINFORCED TO CONFORM WITH LOAD BEARING FACTORS. STANDARD WOOD NAILER SHALL HAVE AN OVERHANGING UNLESS OTHERWISE SPECIFIED. EQUIPMENT RAIL SUPPORTS SHALL BE AS MANUFACTURED BY PATE OR EQUAL.
16. ELECTRICAL: CONFORM TO THE REQUIREMENTS OF ANSI, CI, AND NATIONAL ELECTRICAL CODE. OBTAIN EQUIPMENT MANUFACTURER'S CONTROL WIRING DIAGRAMS FOR THE EQUIPMENT FURNISHED.
17. FIELD INVESTIGATIONS: VISIT THE WORK–SITE AND BECOME FULLY AWARE OF ALL EXISTING CONDITIONS. INVESTIGATE THE CONTRACT DOCUMENTS AND MAKE PROPER PROVISIONS TO AVOID INTERFERENCES OR CONSTRUCTION DELAYS. DETERMINE THE EXACT ROUTE OF EACH DUCT AND PIPE.
18. WORK CONDITIONS: FIELD VERIFY CONDITIONS AND DIMENSIONS FOR INTERFERENCES. INSTALLED WORK SHALL BE PROTECTED DURING CONSTRUCTION AND CLEANED FOR FINAL INSPECTION. TOUCH–UP PAINT ALL RAW EDGES OF METAL EXPOSED TO WEATHER. COORDINATE WITH OTHER TRADES FOR PIPE SLEEVES AND INSTALLATION OF EQUIPMENT SUPPORTS.
19. REQUIREMENTS: PERFORM WORK USING PERSONNEL SKILLED IN THE TRADE INVOLVED. PROVIDE COMPETENT SUPERVISION. FURNISH NEW EQUIPMENT, MATERIALS AND ACCESSORIES BEARING THE MANUFACTURER'S IDENTIFICATION AND CONFORMING TO THE RECOGNIZED COMMERCIAL STANDARDS.
20. EQUIPMENT INSTALLATION: INSTALL EQUIPMENT IN THE SPACE ALLOTTED WITH SUFFICIENT CLEARANCE FOR PROPER OPERATION AND MAINTENANCE AND WITH SUFFICIENT HEAD CLEARANCE ACCORDING TO THE BUILDING CODE. WHERE EQUIPMENT DIFFERS IN ARRANGEMENT OR CONNECTIONS FROM THOSE SHOWN, PROVIDE ALL REQUIRED CHANGES IN PIPING, SUPPORTS AND APPURTENANCES.

MECHANICAL SYMBOLS



MECHANICAL ABBREVIATIONS

(E)	EXISTING	FLR	FLOOR
(N)	NEW	FPM	FEET PER MINUTE
(R)	RELOCATED	FT	FEET
A/C	AIR CONDITIONING	HTR	HEATER
ABV	ABOVE	HZ	HERTZ
ADJ	ADJUSTABLE	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	LAT	LEAVING AIR TEMPERATURE
ACCU	AIR COOLED CONDENSING UNIT	MAN	MANUFACTURER
AHU	AIR HANDLING UNIT	MAX	MAXIMUM
APPROX	APPROXIMATELY	MCA	MINIMUM CIRCUIT AMPS
ARCH	ARCHITECT	MECH	MECHANICAL
BLDG	BUILDING	MIN	MINIMUM
BHP	BRAKE HORSEPOWER	MOC	MAXIMUM OVERCURRENT PROTECTION
BTU	BRITISH THERMAL UNITS	MTD	MOUNTED
BV	BALL VALVE	NOM	NOMINAL
CAP	CAPACITY	NPSH	NET POSITIVE SUCTION HEAD
CD	CEILING DIFFUSER	OSA	OUTSIDE SUPPLY AIR
CLG	CEILING	PH	PHASE
CFM	CUBIC FEET PER MINUTE	PLMB	PLUMBING
CONC	CONCRETE	QTY	QUANTITY
CONN	CONNECT	REQ'D	REQUIRED
CONT	CONTINUATION	RPBP	REDUCING PRESSURE BACKFLOW PREVENTOR
CW	COLD WATER	RM	ROOM
DB	DRY BULB	RA	RETURN AIR
DN	DOWN	RAR	RETURN AIR REGISTER
EA	EACH	RLA	RUNNING LOAD AMPS
EAT	ENTERING AIR TEMPERATURE	SA	SUPPLY AIR
EF	EXHAUST FAN	SQ	SQUARE
ELEC	ELECTRICAL	TDH	TOTAL DISCHARGE HEAD
ER	EXHAUST REGISTER	TEMP	TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE	TYP	TYPICAL
EXH	EXHAUST	VAV	VARIABLE AIR VOLUME
EXIST	EXISTING	VD	MANUAL VOLUME DAMPER
FC	FAN COIL	VTR	VENT TO ROOF
FD	FIRE DAMPER	W/	WITH
FLA	FULL LOAD AMPS	ZD	ZONE DAMPER
FLEX	FLEXIBLE		

HAWAII COUNTY CODE– CHAPTER 5 – BUILDING
2006 IECC & ORDINANCES 09–48 & 10–68
BUILDING ENERGY EFFICIENCY STANDARDS

I CERTIFY THAT THE DESIGN IS IN CONFORMANCE WITH THE BUILDING ENERGY EFFICIENCY STANDARDS PERTAINING TO:

SECTION 503 BUILDING MECHANICAL SYSTEMS

Signature

04/29/2014

Date

NIMR Y. TAMIMI

Name (Print)

MECHANICAL ENGINEER

Title

7936–M

PE or Arch. License No.



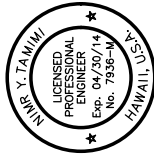
COUNTY OF HAWAII
DEPARTMENT OF PARKS & RECREATION
101 PAUHAH STREET, SUITE 6 / HILO, HAWAII 96720 / PHONE: 808.961.8311 / FAX: 808.961.8411

PAHOA PARK MASTER PLAN
PHASE I - BID SUBMITTAL 2014-02-10

JOB NO.: PR-4234
PLAN SHEET
DESCRIPTION: GENERAL MECHANICAL SPECIFICATIONS, SYMBOLS AND ABBREVIATIONS

M-G001

OF SHEETS
DATE: 2014-02-10



THIS WORK WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND I AM AWARE THAT IT WILL BE UNDER MY OBSERVATION.

SIGNATURE

DATE

REVIEWED:

PAHOA, PUNA, HAWAII

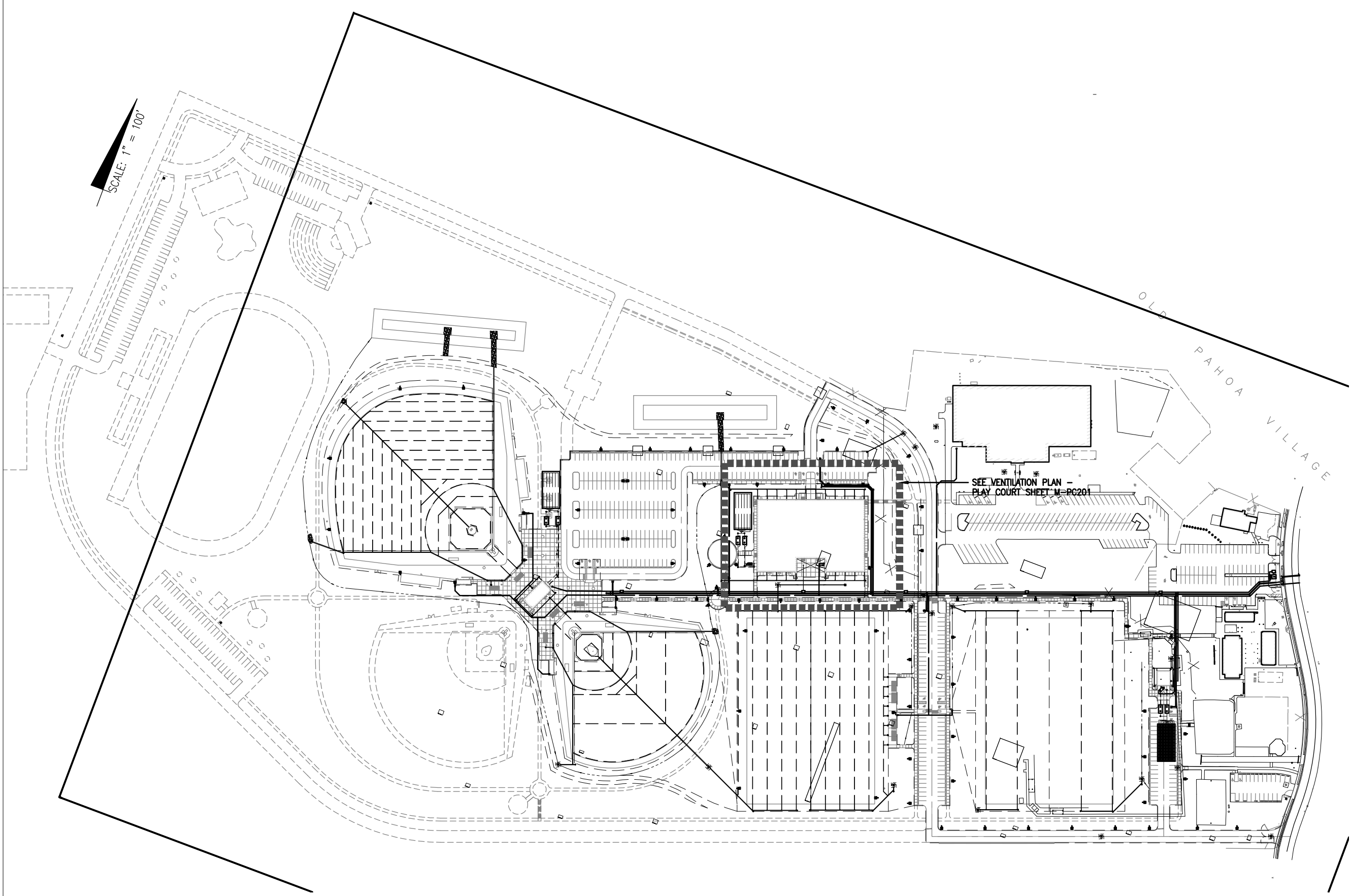
DATE:

2014-02-10

Engineering Partners, Inc.
Progressive Solutions
455 E LANIKAILA STREET
HILO, HAWAII, 96720
www.epintegrated.com

A OVERALL VENTILATION SITE PLAN
SCALE: 1" = 100'

SCALE: 1" = 100'



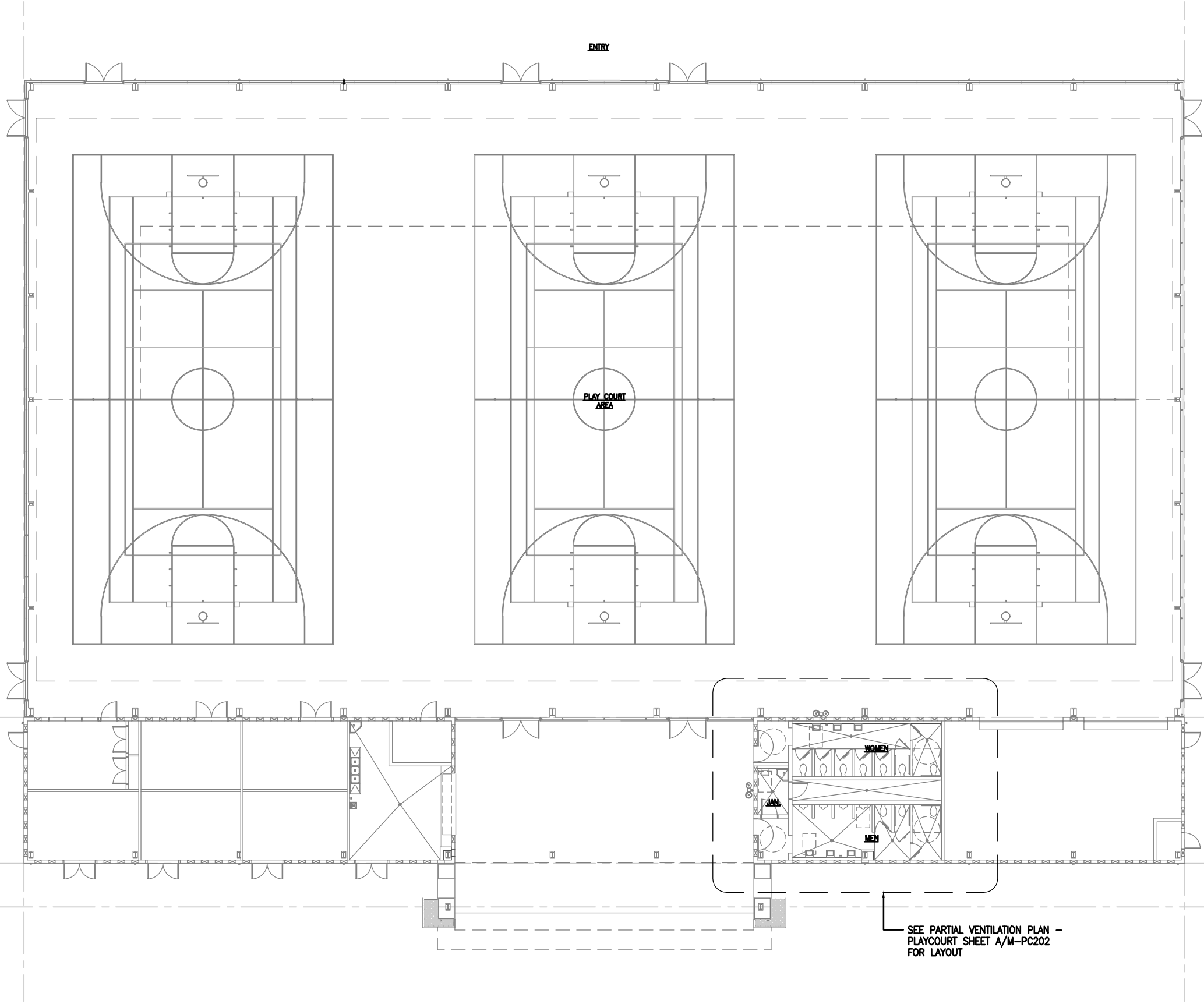
DESIGNED BY: MS	COUNTY OF HAWAII DEPARTMENT OF PARKS & RECREATION 101 PAUHAHI STREET, SUITE 6 / HILO, HAWAII 96720 / PHONE: 808.961.8311 / FAX: 808.961.8411	MARK: 2	DATE: 2014-05-07	DESCRIPTION: ADDENDUM NO. 6
DRAWN BY: MS	PAHOA PARK MASTER PLAN PHASE I - BID SUBMITTAL 2014-02-10	REVIEWED: DEPARTMENT OF PARKS AND RECREATION		
CHECKED BY: NYT				
SHEET NO. M-101		DATE: 2014-02-10		
OF SHEETS		JOB NO.: PR-4234		
DATE:		PLAN SHEET DESCRIPTION: OVERALL MECHANICAL SITE PLAN		
		TMK: (3) 1-5-002:020		
		PAHOA, PUNA, HAWAII		
		SIGNATURE		

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A VENTILATION PLAN - PLAYCOURT

SCALE: 3/32" = 1'-0"

0 4' 8'



SEE PARTIAL VENTILATION PLAN -
PLAYCOURT SHEET A/M-PC202
FOR LAYOUT



COUNTY OF HAWAII
DEPARTMENT OF PARKS & RECREATION
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**PAHOA PARK MASTER PLAN
PHASE I - BID SUBMITTAL 2014-02-10**

TMK: (3) 1-5-002:020

PAHOA, PUNA, HAWAII

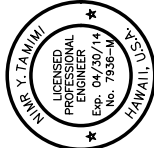
JOB NO.: PR-4234

PLAN SHEET DESCRIPTION: VENTILATION PLAN - PLAN COURT

M-PC201

SHEET NO.

OF SHEETS
DATE: 2014-02-10



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION
AND I AM A LICENSED PROFESSIONAL
ENGINEER UNDER THE PROVISIONS
OF THE HAWAIIAN ENGINEERING
ACT. MY LICENSE NO. IS 7936-N.
THIS WILL BE UNDER MY OBSERVATION.

SIGNATURE

MARK DATE DESCRIPTION

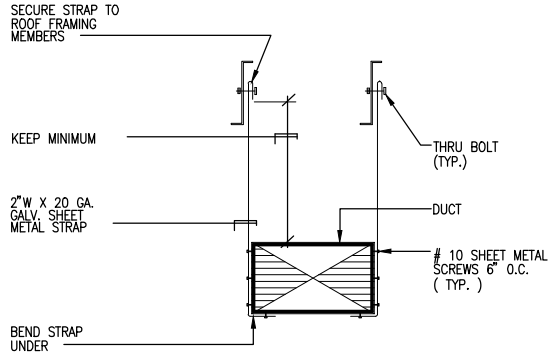
2 2014-05-07 ADDENDUM NO. 6

REVIEWED:
DEPARTMENT OF PARKS AND RECREATION DATE



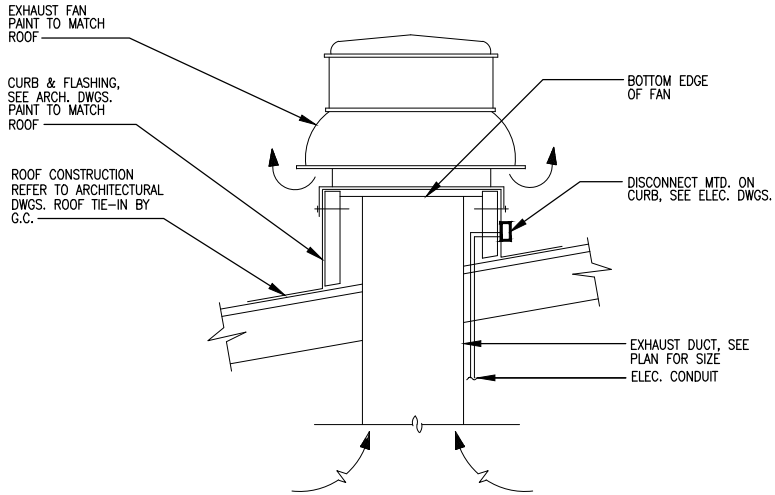
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NOTE: INSTALL PER SMACNA GUIDELINES

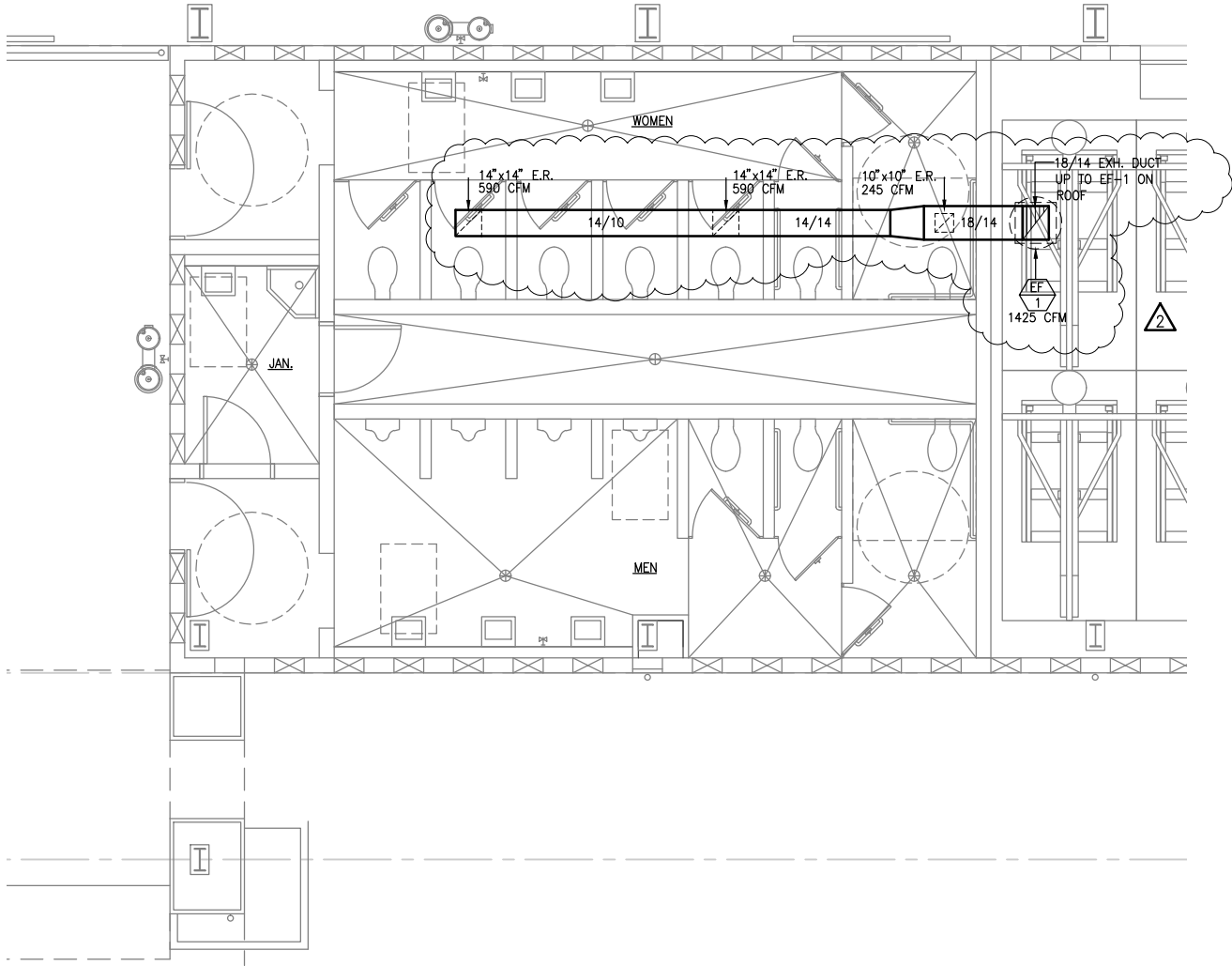
1 DUCT SUPPORT DETAIL
SCALE: N.T.S.



2 EXHAUST FAN MOUNTING DETAIL
NOT TO SCALE

EXHAUST FAN SCHEDULE														
UNIT NO.	AREA SERVED	MANUFACTURER MODEL	CFM	TYPE	DRIVE	STATIC PRESSURE	RPM	V	PH	HZ	HP/WATTS	FLA	SONES	REMARKS
	WOMEN'S BATHROOM PLAY COURT	GREENHECK GB-141	1,425	CENTRIFUGAL ROOF FAN	BELT	0.50	1,053	208	1	60	1/3 HP	—	8.2	1

1. INTERLOCK WITH W/LIGHT SWITCH OF ROOM SERVED.



A PARTIAL PLUMBING PLAN - PLAY COURT
SCALE: 3/32" = 1'-0"



COUNTY OF HAWAII
DEPARTMENT OF PARKS & RECREATION
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PAHOA PARK MASTER PLAN
PHASE I - BID SUBMITTAL 2014-02-10

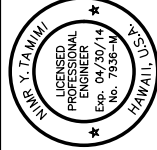
JOB NO.: PR-4234
PAHOA, PUNA, HAWAII

PLAN SHEET
DESCRIPTION: PARTIAL VENTILATION PLAN- PLAY COURT

SHEET NO.
M-PC202

DESIGNED BY: MS
DRAWN BY: MS
CHECKED BY: NYT
DATE: 2014-02-10

TMK: (3) 1-5-002:020



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ME OR UNDER MY CLOSE PERSONAL
SUPERVISION AND I AM AWARE
AND WILL BE UNDER MY OBSERVATION.

SIGNATURE

DEPARTMENT OF PARKS AND RECREATION

DATE

DESCRIPTION
ADDITION NO. 6

DATE
2014-05-07

MARK
2

REVIEWED:

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